



Forensic Facial Reconstructions

ASSISTING WITH UNIDENTIFIED PERSON CASES

Created by Beth Buchholtz

What is a Forensic Facial Reconstruction?

- ▶ Facial Reconstructions, also called Facial Approximations, are drawings or sculptures completed by trained forensic artists
- ▶ The forensic artist is called in by an investigating agency (either Law Enforcement or Coroner/Medical Examiner) when an unidentified deceased person's facial features are no longer recognizable due to decomposition or trauma

How do facial reconstructions help?

- ▶ Every unidentified deceased person is someone's missing loved one
- ▶ A facial reconstruction can assist investigating agencies by providing an image of the person that can be released to the public along with case information
- ▶ The goal is to provide an image that closely resembles how the person appeared in life, and to prompt recognition with a family member or friend

The Process of Facial Reconstruction

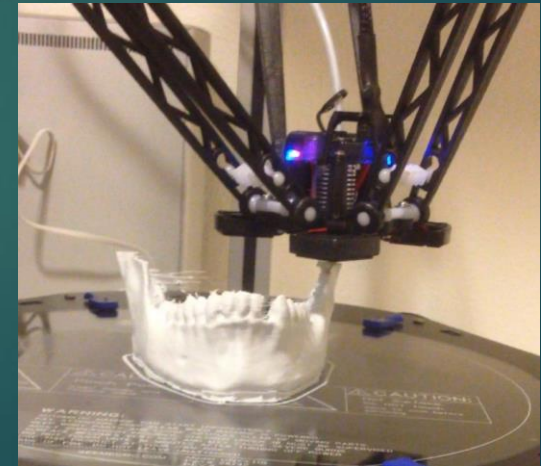
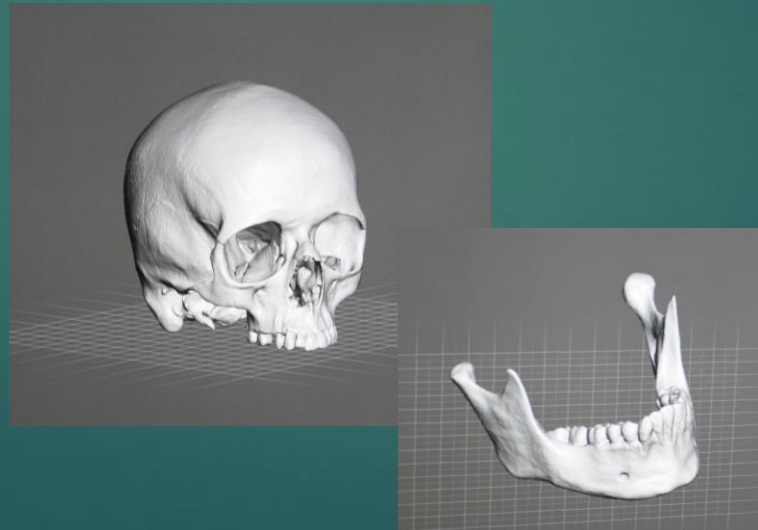
The forensic artist is provided case information that may include:

- ▶ Photos, anthropology reports, odontology (dental) reports
- ▶ Information about clothing found with the person (especially clothing sizes)
- ▶ Approximate age, sex, height, hair length and hair color, and possible ancestry

The forensic artist may examine and photograph the remains in order to document unique features that can assist in estimating the person's appearance

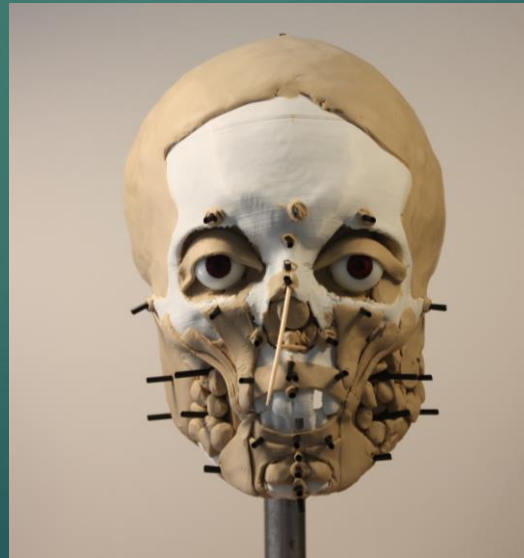
3D Facial Reconstruction

- ▶ When a facial reconstruction sculpture is created, it starts with a 3D scan of the skull and mandible (lower jaw)
- ▶ The digital file created from the scan can then be used to create a digital sculpture or can be printed in plastic using a 3D printer for a clay sculpture



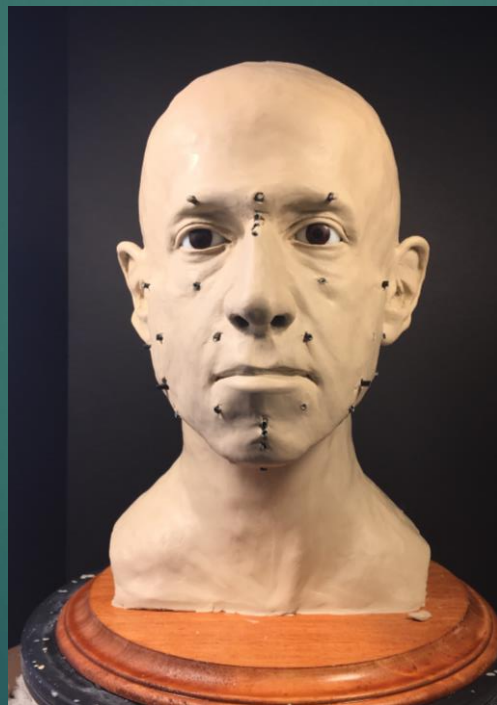
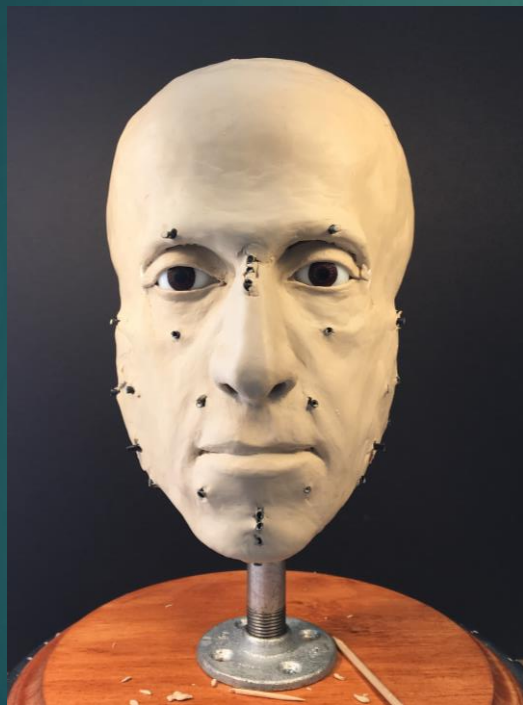
Adding muscles, tissue depth markers, and facial features

Layers of clay facial structures are added to the plastic skull copy using average tissue depth measurements at various landmarks on the skull (indicated by black markers in photos below)



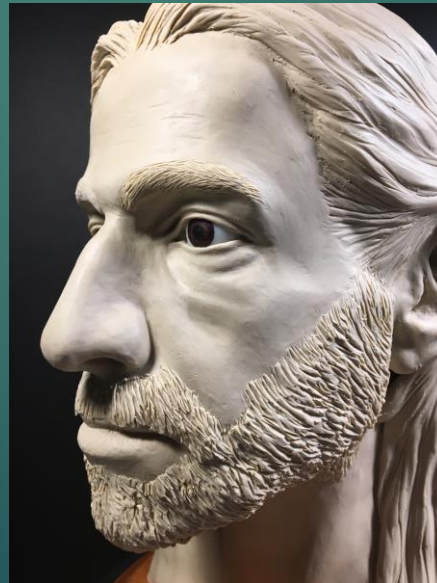
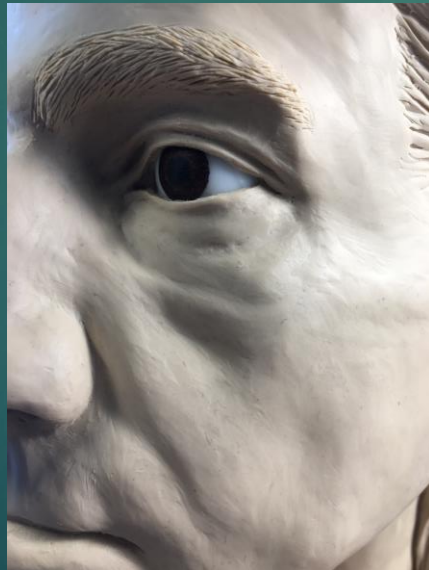
Building the face

- ▶ Tissue depth markers are used as a guide to shape the face
- ▶ Information known about the hair of the individual is used when sculpting hair



Small details

- ▶ Facial folds and wrinkles are added with careful consideration to the estimated age range of the individual, provided by the anthropologist, and the underlying skeletal and dental anatomy
- ▶ Facial hair can be sculpted if information about facial hair is provided by investigators



Final photography and photo editing

- ▶ Photos of the finished sculpture are taken from various angles
- ▶ The photos can be edited to show the hair darker, if this is known
- ▶ They can be taken with and without facial hair and with and without eyeglasses if glasses are found with the person



NamUs UP517
Boulder Co., CO

Images provided to the investigating agency

- ▶ The investigating agency is provided multiple photos which can be used in press releases to seek tips from the public
- ▶ If someone contacts the agency with a possible name for the individual, the agency can then pursue a scientific identification or exclusion using dental records or DNA



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Garfield Co., CO

What to do if you recognize a facial reconstruction

If you have a missing loved one and think you recognize a facial reconstruction, determine which agency is investigating the unidentified person's case and give them a call

- ▶ Be prepared to provide them some information about your missing person:
 - ▶ Has your loved one been reported missing and to which agency were they reported? If not, provide the time frame for when they went missing and a detailed description of your missing person
 - ▶ Are dental records available?
 - ▶ If you are a close biological relative would you be willing to provide a DNA sample (cheek swab) to assist with identification?

Contact Information for Colorado Unidentified Person Cases

- ▶ Colorado Bureau of Investigation (303) 239-4211
- ▶ NamUs Regional Program Specialist for Region 1 (AZ, CO, HI, NM, NV, UT, Guam and Saipan): Dustin Driscoll (817) 240-4106
Dustin.Driscoll@unthsc.edu
- ▶ Contact Info for Colorado Coroners' Offices: Colorado Coroners Association: www.coloradocoroners.org